

### Abstract of the Disclosure

A pump for carrying supercritical CO<sub>2</sub> fluid or liquid CO<sub>2</sub> capable of securing reliability by optimizing a bearing part. An angular ball bearing (8) comprises an inner ring (8a), an outer ring (8b), balls (8c) held therebetween, and a cage (8d) holding the balls (8c). Both the balls and the inner and outer rings are formed of a ceramic to form a totally ceramic bearing. Also, the cage (8d) is guided by the outer ring or the inner ring. Specifically, for example, when the cage is guided by the inner ring, the inner peripheral surface (8db) of the cage (8d) opposed to the outermost peripheral surface (8ab) of the inner ring (8a) is guided by the outermost peripheral surface (8ab) of the inner ring (8a).